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Abstract :

A compact turbo power pack was designed for application in underwater propulsion. The turbo power pack designed consists of a high pressure ratio supersonic partial admission impulse turbine coupled to a reduction gear box to reduce the turbine shaft speed to the level of the shaft speeds of the contra-rotating propellers. The possible configurations of the turbine and gear box were studied to optimise the system and the design parameters. The report presents the details of the final configuration of the system.